

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Dr. Rudiger KURTZ

Group Art Unit: 1734

Appln. No. : 10/619,424

Examiner: B. A. Lamb

Filed : July 16, 2003

Confirmation No.: 7328

For . : DEVICE AND PROCESS FOR IMPREGNATING A PAPER OR CARDBOARD WEB

**REPLY BRIEF UNDER 37 C.F.R. § 41.41(a)(1)**

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401 Dulany Street  
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Sir:

This Reply Brief is in response to the Examiner's Answer dated April 4, 2007, the period for reply extending until June 4, 2007.

In the Examiner's Answer, the Examiner has maintained the rejections set forth in the final Office Action dated July 27, 2006. Accordingly, the grounds of rejection for review in this appeal is:

- (1) the rejection of claims 1 – 15 and 33 as unpatentable under 35 U.S.C. § 103(a) over International Publication WO 01/98585 A1 [hereinafter “WO ‘585”].

Appellants note that this Reply Brief is being filed under 37 C.F.R. 41.41(a)(1) and is directed to the arguments presented in the Examiner's Answer, and is therefore must be entered unless the final rejection is withdrawn in response to the instant Reply Brief. With regard to this Reply Brief, Appellants note that they are addressing points

made in the Examiner's Answer and not repeating the arguments set forth in the Appeal Brief.

### **POINTS OF ARGUMENT**

#### **First Issue**

On page 8, section 10 (Response to Argument) of the Examiner's Answer, the Examiner contends that Appellant's argument, that WO '585 teaches away from the present invention by explicitly disclosing a permanent compression of the web, is not persuasive. Appellants submit that the Examiner has not considered WO '585 as a whole, including those portions that teach away from the present invention.

Appellants note that a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). Further, Appellants note that if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Additionally, Appellants note that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

The Examiner asserts it would have been obvious to modify WO '585 to include elastic compression of the web notwithstanding WO '585's disclosure at page 1, lines 17 – 19, that “[t]he purpose of calendering is to improve the paper quality by pressing the

paper into a particular standard final thickness,” and at page 1, lines 26 – 27, that “[a]t the same time a fixed final density is attained for the paper.” Thus, Appellant submits WO ‘585 necessarily discloses only a permanent compression of the web.

Further, the Examiner (referencing WO ‘585 at page 4, line 23 – page 5, line 7) alleges:

WO ‘585 teaches that the wide nip calender is capable of being operated in a manner such that the fibers in the middle of the z-direction may be left unaffected wherein the bulkiness of the paper is maintained or may be operated such that the fibers in the middle of the paper undergoes deformation especially in the case of thin paper grades which would infer to one skilled in the art that the WO ‘585 apparatus is capable of being operated to achieve different outcomes in regard to the web dependent upon properties of the web itself entering the calender nip. Therefore, the examiner maintains that the apparatus of WO ‘585 is capable of elastic compression of the web in the calendaring nip especially given the teaching of WO ‘585 that fibers in the middle in the z-direction of the paper web may be left unaffected or not compressed while fiber only at the surface of the web are deformed thereby limiting compression of the web.

Thus, Appellant understands the Examiner to assert that it would have been obvious to limit of the compression of the web in WO ‘585 to effect an elastic compression of the web. Appellants disagree.

Appellants submit that above-referenced text of WO ‘585 explicitly discloses a plastic, i.e., permanent, deformation of the surface of the web. Furthermore, while acknowledging that the above-cited passage discloses different ways the wide nip calender can affect the paper web, Appellants submit each of the different ways of compressing the web in the wide nip calender necessarily results in a permanent compression of the web. While WO ‘585 discloses an embodiment in which a middle portion of the web is not compressed, the portions adjacent the middle portion are

permanently compressed. Moreover, neither WO '585 nor any other document of record provides any arguable basis to assert no compression in the middle portion of the web constitutes an elastic compression, as recited in the pending claims.

Thus, Appellants submit that the Examiner has not considered the WO '585 reference as a whole, as this document includes portions that expressly and unambiguously teach away from the present invention. Appellants note that the entire disclosure of WO '585 relates to providing a permanent compression of the web to provide a permanent smoothing of the surface of the web. For example, WO '585 discloses at page 3, lines 18 and 19 that "the aim is to attain a suitable surface of the paper for coating, primarily a smoother surface, and especially to produce a closed surface for the base paper." No such closed surface is recited in the pending claims. As such, Appellants submit that WO '585 teaches away from an elastic compression of the web.

Furthermore, Appellants submit that WO '585 explicitly criticizes, discredits or discourages a non-permanent compression of the web. For example, WO '585 discloses at page 1, line 33 – page 2, line 3 that:

Normally, when paper is calendered the smoothing and glazing of its surface takes place at the expense of the thickness of the paper. In the calender, linear load and/or nip pressure is/are used as a control variable, which determines the surface quality of the paper as well as the final thickness. Especially in paper grades whose basis weight is low, it has been impossible to implement such calendering in which the thickness of paper would not be substantially reduced when the intended surface quality is pursued.

Thus, Appellants submit that WO '585 teaches away from a calendering process that allows the web to subsequently expand its thickness, and therefore explicitly criticizes, discredits or discourages a non-permanent compression.

Moreover, Appellants submit that modifying WO '585 as suggested by the Examiner would render WO '585 unsatisfactory for its intended purpose. That is, WO '585 is concerned with achieving a permanent compression of the web to provide a smooth, closed surface of the web, and specifically discloses "[t]he purpose of calendering is to improve the paper quality by pressing the paper into a particular standard final thickness and especially by smoothening its surface," (WO '585 at page 1, lines 17 – 19). Appellants submit that modifying WO '585 in the manner asserted by the Examiner, i.e., to provide an elastic compression of the web, would not produce the intended smooth, closed surface of the web suitable for coating the paper, disclosed by WO '585. Thus, Appellants submit that modifying WO '585 as suggested by the Examiner would render WO '585 unsatisfactory for its intended purpose.

Additionally, Appellants submit that the proposed modification of WO '585 would change the principle of operation of WO '585. That is, WO '585 operates under the principle of applying a permanent compression to the web "to bind loose particles on the surface and close the surface so that the coating layer would become even," (WO '585 at page 1, lines 20 – 22). Appellants submit that modifying WO '585 as the Examiner suggests would change the principle of operation of WO '585, in that the web would only be temporarily compressed and subsequently decompressed. However, Appellants submit that there are no articulable reasons presented in WO '585 to support the Examiner's assertion of obviousness or to assume the decompressed web would

exhibit a closed and/or smooth surface. Thus, Appellants submit that the teaching of WO '585 is not sufficient to render the claims *prima facie* obvious.

Therefore, Appellants submit that the Examiner has not properly considered WO '585 as a whole, including those portions that teach away from the present invention.

Accordingly, Appellants request that the Board reverse the Examiner's decision to finally reject claims 1 – 15 and 33 under 35 U.S.C. § 103(a) and remand this matter to the Examiner for allowance of the application.

### **Second Issue**

On Page 7, section 10 (Response to Argument) of the Examiner's Answer, the Examiner, while acknowledging that WO '585 fails to disclose an elastic compression, asserts that an elastic compression could be achieved with the wide nip. Moreover, the Examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify WO '585 to provide an elastic compression of the web. Additionally, with regard to claims 1 – 15, the Examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify WO '585 to provide a distance between the coating device and the wide nip calender such that elastic compression of the web by the wide nip calender is still present when the web enters the coating device.

Appellants submit that inquiry is not whether the device of WO '585 *could* have elastically compressed a web, but would it have been obvious to one ordinarily skilled in the art reviewing WO '585 to modify the system to elastically compress the web. In this regard, Appellants submit that the Examiner has not identified any reason why a person

of ordinary skill in the art would have modified the prior art in the manner claimed. Appellants respectfully submit that the Examiner's rejection was silent as to a reason for modifying WO '585 to perform an operation that WO '585 expressly teaches against, and was composed entirely of conclusory statements of obviousness with no objective evidentiary support. Furthermore, Appellants submit that this reasoning is even more critical in the present case, as WO '585 explicitly teaches away from an elastic compression of the web.

Appellants acknowledge that since the Appeal Brief and Examiner's Answer have been drafted, the Supreme Court has issued a decision in *KSR International Co. v. Teleflex Inc., et al.*, 550 U.S. \_\_\_\_ (2007). While KSR dealt primarily with whether a patent claiming the combination of elements of prior art is obvious, Appellants submit that in view of *KSR*, motivation is still a factor in a rejection under 35 U.S.C. § 103(a). Moreover, Appellants submit that *KSR* states that, in order to facilitate review, the Examiner's analysis for a rejection under 35 U.S.C. § 103(a) should be made explicit. Additionally *KSR* states (*quoting In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006)):

Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.

Appellants note that a statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill in the art at the time the invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to modify the reference. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Int. 1993). That is, even if the

applied references relied upon taught all of the aspects of the claimed invention (which the Examiner does not assert and Appellants do not concede), for a proper rejection under 35 U.S.C. § 103(a) the Examiner is still required to provide some objective reason why a person of ordinary skill in the art would have modified the reference in the manner claimed. Appellants submit that the Examiner has not set forth any such reasoning.

Rather, Appellants submit that the Examiner has merely made a conclusory statement of obviousness. The Examiner bases her conclusion of obviousness on the grounds that an adjustment of the pressure profile and the nip length is disclosed at page 7, lines 32 and 33. However, Appellants submit that this section of the text only discloses different operating conditions, and that the results of these operating conditions remains the permanent compression of the web.

Additionally, the Examiner points out that WO '585 discloses at page 4, line 23 – page 5, line 7 different ways the wide nip calender can affect the paper web. WO '585 states at page 4, line 23 – page 5, line 7:

Thus, the surface of the web is brought to a state in which the plastic deformation of fibres is permanent. In that case it is sufficient that the deformation is produced in the fibres on the surface layer of the paper, the roughening caused by the relaxation of the same having been the cause of problems, and the fibres in the middle in the z-direction may be left unaffected, wherein the bulkiness of the paper is maintained. The fibres in the middle of the paper may also undergo deformation, especially in thin paper grades, and bulk is lost at this stage, but because of the good surface quality it is possible to use lower pressure than usual in the calendering after the coating, wherein bulk is saved as a whole.

The Examiner asserts one skilled in the art would infer the WO '585 apparatus is capable of being operated to achieve different outcomes of the web dependent on properties of the web itself entering the calendering nip and the pressure profile of the



nip. More specifically, the Examiner asserts that the WO '585 apparatus is specifically capable of providing an elastic compression and that it would have been obvious to do so. Appellants respectfully disagree.

Appellants submit that the above-cited text explicitly discloses a plastic deformation of the surface of the web, which is a permanent deformation. Furthermore, while acknowledging that the above-cited passage discloses different ways the wide nip calender can affect the paper web, Appellants submit notwithstanding which of the disclosed different ways the wide nip calender may affect the web, a permanent compression of the web is the expressly intended result of WO '585. Moreover, Appellants submit that WO '585 expressly states that the deformation is permanent to prevent a roughening of the surface to specifically address problems. While acknowledging WO '585 discloses portions of the web may be left unaffected such that no compression results in a portion of the web, i.e., a middle portion, Appellants submit that there is no arguable disclosure or teaching of an elastic compression, as recited in the pending claims.

In view of the foregoing, Appellants submit one skilled in the art would not find it obvious to modify the WO '585 apparatus to achieve an elastic compression of the web.

However, even assuming *arguendo* the WO '585 apparatus is capable of being operated to achieve an elastic compression of the web (which Appellants do not concede), Appellants submit that the Examiner must still set forth a reason why a person of ordinary skill in the art would have modified the prior art in the manner claimed, particularly since the modification would be contrary to the express disclosure of WO

‘585. Appellants respectfully submit that the Examiner’s rejection was silent as to a reason for modifying WO ‘585 to provide an elastic compression.

Additionally, with regard to claims 1 – 15, Appellants submit that the Examiner has not identified a reason why a person of ordinary skill in the art would have modified WO ‘585 to provide an elastic compression of the web and to position the coating device a distance from the wide nip such that the elastic compression is still present in the web when the web enters the coating device.

Thus, Appellants respectfully submit that the Examiner has not set forth a *prima facie* case of obviousness, because the Examiner has not identified the reason why a person of ordinary skill in the art would have modified WO ‘585 in the manner claimed. Therefore, with respect to claims 1 – 15 and 33, Appellants respectfully submit that it would not have been obvious to one of ordinary skill in the art at the time of the invention to utilize WO ‘585 to achieve an elastic compression of the web. Additionally, with respect to claims 1 – 15, Appellants submit that it would not have been obvious to one of ordinary skill in the art at the time of the invention to position the coating device a distance from the wide nip such that the elastic compression is still present in the web when the web enters the coating device.

Accordingly, Appellants request that the Board reverse the Examiner’s decision to finally reject claims 1 – 15 and 33 under 35 U.S.C. § 103(a) and remand this matter to the Examiner for allowance of the application.

**Third Issue**

Appellants contend that the Examiner did not address each of Appellants' presented arguments, as required by the MPEP for a proper Examiner's Answer. MPEP § 1207.02 provides, *inter alia*, that:

The answer should contain a response to the allegations or arguments in the brief . . . .

. . . [t]he answer must also include any necessary rebuttal of arguments presented in the appellant's brief.

. . .

(10) Response to Argument. A statement of whether the examiner disagrees with each of the contentions of appellant in the brief with respect to the issues presented and an explanation of the reasons for disagreement with any such contention. The examiner must use headings and subheadings paralleling the headings and subheadings utilized in the appellant's brief.

Appellants submit that the Examiner's Answer did not contain a response to all the arguments presented in the Appeal Brief.

Specifically, Appellants submit that the Examiner did not address Appellants' second argument both with respect to claims 1 – 15 and claim 33. Namely, the Examiner did not address Appellants' argument that the Examiner has not set forth a reason why a person of ordinary skill in the art would have modified the reference. That is, while the Examiner has maintained that it would have been obvious to one of ordinary skill in the art that WO '585 would be capable of elastic compression, the Examiner has not provided the requisite reasoning as to why someone would be motivated to modify the WO '585 to do so.

As set forth above, Appellants respectfully submit that the Examiner's rejection was silent as to a reason for modifying WO '585 to perform an operation that 'WO 585 expressly teaches against. Moreover, Appellants respectfully submit that the Examiner's

Answer did not address Appellants' argument that the rejection did not provide the requisite reasoning for modifying a reference.

Thus, Appellants submit that the Examiner's Answer did not address each of the presented arguments, and thus is not a proper Examiner's Answer.

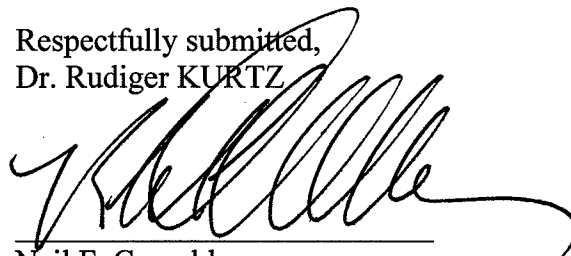
Accordingly, Appellants request that the Board reverse the Examiner's decision to finally reject claims 1 – 15 and 33 under 35 U.S.C. § 103(a) and remand this matter to the Examiner for allowance of the application.

**CONCLUSION**

For the reasons expressed above, Appellants respectfully request the Board reverse the grounds of rejection advanced by the Examiner, and the application be remanded to the examining group for prompt allowance.

Although no fees are believed to be due with this Reply Brief, the Commissioner is hereby authorized to charge any additional fees, including an extension of time, to Deposit Account No. 19-0089.

Respectfully submitted,  
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